

## **LISTING OF THE CLAIMS**

*This listing of the claims replaces all prior claim versions and listings in the application:*

### **1-13. (Canceled)**

**14. (Currently Amended)** A lighting apparatus using microwave energy, comprising:

- a casing;
- a reflector fixed to an outer surface of the casing;
- a magnetron disposed inside the casing, for generating microwave energy;
- a waveguide for guiding microwave energy;
- a resonator disposed inside the reflector and providing a resonant region in which the microwave energy is resonated;

a bulb having a stem disposed inside the resonator, and filled with a material which emits light, when excited by the microwave energy;

a rear mirror formed in a hemispherical shape having a curved surface integrally fixed to the bulb stem and integrally rotatable together with the bulb when the bulb is rotated, for forwardly reflecting light rearwardly emitted from the bulb; and

a fixed mirror formed in a hemispherical shape having a curved surface fixed to the casing at a rear side of the bulb and having a hole in which a bulb stem rearwardly extended from the bulb is rotatably insertable for forwardly reflecting light emitted to the rear of the bulb,

wherein a diameter of the hole of the fixed mirror is formed to be smaller than a width of the rear mirror, and the center of the bulb is positioned at a focal point of both the curved surface of the rear mirror and the curved surface of the fixed mirror.

### **15-16. (Canceled)**

17. **(Previously Presented)** The apparatus of claim 14, wherein the rear mirror is made of a quartz material.

18. **(Previously Presented)** The apparatus of claim 14, wherein the fixed mirror is made of a ceramic material.

19. **(Canceled)**

20. **(Previously Presented)** The apparatus of claim 14, wherein the fixed mirror is made of an  $\text{Al}_2\text{O}_3$ ,  $\text{Si}_3\text{N}_4$  or  $\text{AlN}$  material.